# Michigan Department of Agriculture

## Bovine TB Eradication Program

### USDA Requirements
*based on the*
### Memorandum of Understanding
*and*
### 2006 and 2007 USDA Program Reviews

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# Introducton

## Michigan's Bovine TB Eradication Project:

Bovine Tuberculosis (TB) is an infectious bacterial disease that primarily affects the respiratory tract of mammals, including humans. Bovine TB is unique in Michigan because it is established in wild white-tailed deer and periodically spills over into cattle populations in the northern Lower Peninsula.

The Bovine TB Eradication Project incorporates expertise from bovine TB program coordinators in the Michigan departments of Agriculture (MDA), Community Health (MDCH), and Natural Resources (DNR); they function in cooperation with the U.S. Department of Agriculture (USDA), Michigan State University (MSU) College of Agriculture and Natural Resources (CANR) Extension and Agriculture Experiment Station, and MSU College of Veterinary Medicine (CVM).

## MDA's Bovine TB Eradication Program:

This document outlines MDA's specific requirements as they relate to the USDA Veterinary Services (VS) Memorandum of Understanding (MOU) with MDA and DNR, and past Bovine TB Program reviews.

After more than 10 years into the disease eradication program, MDA has:

1. Conducted extensive, statewide surveillance in cattle.
2. Found no disease in the cattle herds outside of the designated TB zone.
3. Found no indication of infected cattle moving out of the TB zone.
4. Received TB-free status for the Upper Peninsula.

However, the USDA reviews in 2006 and 2007 indicated MDA did not meet some MOU requirements. These findings could jeopardize Michigan's current split-state status.

These reviews identified two overarching themes:

1. There must be increased prevention of bovine TB spillover from wildlife into cattle.
2. There must be increased control and monitoring of animal movements between zones.

The fate of livestock and wildlife TB eradication programs are linked, and Michigan's status is predicated on controlling both infection in cattle and the risk of deer to cattle transmission.

In order to implement these additional programs, we must seek support from the industry, Congress, the Michigan Legislature, and other partners. This document highlights the commitments made by both MDA and USDA, the impacts on producers and the public (both positive and negative), the changes that must occur, and the consequences if these commitments are not implemented. The source of each commitment is in brackets.

Other state department partners are willing to institute policies that compliment the USDA-VS and MDA programs. These agencies, however, do not fall under the jurisdiction or requirements of USDA-VS. Project partners were complimented in the program review for their help and participation in the disease eradication effort. Ultimately, all agencies and partners have the end goal of achieving bovine TB eradication.


Michigan calls the infected zone of the northern Lower Peninsula the Modified Accredited Zone (MAZ). The MAZ comprises Alcona, Alpena, Antrim, Charlevoix, Cheboygan, Crawford, Emmet, Montmorency, Oscoda, Otsego, and Presque Isle counties and portions of Iosco and Ogemaw counties that are north of the southernmost boundary of the Huron National Forest and the Au Sable State Forest.

The remaining counties in the southern Lower Peninsula make up the Modified Accredited Advanced Zone (MAAZ).

The Upper Peninsula is bovine TB-free.

# Commitment

*Increase the emphasis on Wildlife Risk Mitigation Plans (WRMP) for cattle herds in the Modified Accredited Zone (MAZ).* [MOU]

**Required change:**

Producers will be expected to adopt farm management practices to prevent disease spillover from free-ranging deer.

MDA must contact and inform all MAZ producers of the need for developing WRMPs.

USDA-Wildlife Services (WS) provides wildlife risk reduction consultation to producers. MDA is seeking funding from Congress for USDA-WS that will ensure the availability of wildlife experts to consult with producers.

**Impact:**

Effective prevention will result in:

1. Fewer infected herds.
2. Lower future indemnity costs.
3. Producer consent.
4. Greater market confidence.
4. Increased support from government funding sources.

**Consequences if not implemented:**

Experts believe there will continue to be bovine TB positive herds unless these plans are implemented. The lack of WRMPs in the MAZ threatens current split-state status and delays advancement in status.

# Commitment

*Introduce legislation to tie repopulation herd plans to indemnity in the MAZ.* [Legislative Initiative]

### Required change:

Herd plans for once infected farms are tied to indemnity at the federal level. MDA wishes to do the same at the state level.

Cattle management practices that may play a part in the transmission of bovine TB must change. Producers must be responsible for protecting their cattle by preventing transmission from wildlife. Michigan herd plans, like the federally required herd plans, would include wildlife risk reduction measures.

### Impact:

Increased time and effort on the part of MDA's executive office and legislative liaison. MDA's Director will have the ability to limit indemnity based on compliance with herd plans for re-infected herds, use of risk mitigation tools, and overall producer cooperation.

Change in livestock management practices will require time and money.

### Consequences if not implemented:

Continued transmission of bovine TB from wildlife threatens the current status level and future taxpayer funding.

Increased difficulties obtaining indemnity payments for depopulation.

# Commitment

*Tougher restrictions on agricultural management practices that may play a part in the transmission of bovine TB.* [MOU]

**Required change:**

Review normal agricultural practices in a disease/infected zone and make changes to limit free-ranging deer access to cull commodities consistent with the DNR feeding and baiting regulations.

**Impact:**

Set the precedent for restrictions on agricultural management practices within infected zones when wildlife are present.

Begins the process of better aligning agriculture and wildlife management practices within the MAZ.

**Consequences if not implemented:**

Creates the perception that the agricultural community is unwilling to limit practices contributing to wildlife congregation.

Erosion of ability to expect wildlife management officials to enact increasingly stringent feed bans on their community.

# Commitment

*Ensure disease eradication policy is based on sound science.* [P.A. 466, 1988]

Michigan State University (MSU) research has been instrumental in the development of policy to eradicate bovine TB from Michigan. Current requested initiatives are:

- To determine if opossums can transmit tuberculosis; if so, then development of a risk assessment model and improved biosecurity methods for farms in the endemic tuberculosis area will be needed.
- To develop a more rapid and lower-cost bovine TB diagnostic technique. MSU proposes to compare the Macrophage Cell Line Propagation Technique with the current one in use; if it compares favorably with current techniques, there are likely many veterinary diagnostic laboratories in North America who would adopt this system.
- To develop a standard diagnostic test for bovine TB for surveillance in domestic cattle, in livetrapped white-tailed deer, and in dogs and cats on tuberculosis infected farms.
- To conduct wildlife source infection evaluations on cattle farms.
- To assess producer understanding of and participation in the implementation of voluntary wildlife risk mitigation plans on 1,000 farms in the TB area of Michigan.

**Consequences if not implemented:**
Unanswered questions regarding disease transmission will continue to undermine producer commitment to the program.

# Commitment

*Efficient enforcement strategies to increase movement certificate compliance.* [Program Review]

**Required:**

MDA must monitor movements of MAZ cattle and bison at all livestock markets within the state and at the Mackinac Bridge.

MDA must have the authority to stop livestock vehicles approaching and leaving the MAZ and request movement certificates to confirm all test-eligible cattle have been tested.

Increased monitoring of livestock haulers - to check for movement certificates.

**Impact:**

MDA must either obtain additional law enforcement authorities or contract with other law enforcement agencies.

Producers will need to plan animal movements in advance and obtain hard copies of movement certificates prior to moving animals between zones.

Additionally, MAAZ producers now face costs associated with moving cattle across zones.

**Consequences if not implemented:**

The actions of a few non-compliant individuals could threaten current split-state status.

# Commitment

*Ensure effective MAAZ and bovine TB-free Zone Surveillance.* [MOU]

**Required change:**

Meet existing random surveillance testing requirements of 775 herds in the MAAZ and 25 herds in the Upper Peninsula.

Consider moving to a more targeted form of surveillance. Approval of new plan by USDA epidemiologists will be required.

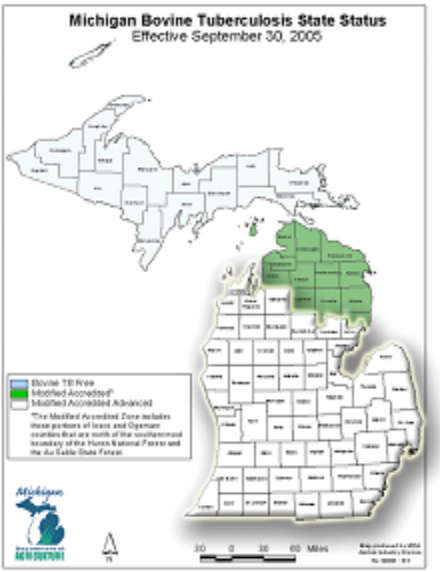
**Impact:**

Positive impact: More efficient and understandable surveillance testing requirements.

Potential negative impact: MAZ producers may find it increasingly difficult to market cattle to other producers.

**Consequences if not implemented:**

Continued erosion of producer support in the MAZ and inefficient use of government resources.



# Commitment

*Expanded movement certificate requirements.* [Program Review]

**Required change:**
Tighter statewide control of cattle movements.

Producers must obtain certificates for interzonal and interstate cattle movement.

Government must provide a mechanism for producers to obtain these certificates on-line.

**Impact :**
Government must develop and manage new animal health and movement tracking database supported by the Michigan Department of Information Technology. This will take a tremendous investment in infrastructure.

Producers must retrieve MAZ movement information within 48 hours.

Producers must plan ahead, document animal movements, and have a government issued movement certificate in hand before animals are moved.

**Consequences if not implemented:**
Spread of bovine TB within and beyond the MAZ.

# Commitment

*Reconciliation of herd inventories in the MAZ.* [MOU, US Office of Inspector General Report]

**Required change:**

MAZ producers must provide documentation for changes in cattle inventories each year, usually during the annual whole-herd herd test.

**Impact:**

Increased amount of time will be needed to test each herd in the MAZ, potentially resulting in friction between regulatory personnel and farmers.

Reconciliations should help prevent illegal movement from MAZ farms and will improve epidemiological investigations.

Increased on-farm record keeping.

**Consequences if not implemented:**

Erosion of long-term funding support from the federal government.

# Commitment

*Radio Frequency Identification (RFID) use is required for Michigan cattle and bison movement and is the official identification used for bovine TB testing.* [MOU]

**Required change:**

Require RFID for all interzonal movements and maintain the ability to obtain movement information within 48 hours if trace testing is needed.

MDA policy is to use RFID as the official ID when cattle are bovine TB tested.

Information technology systems linking farms, markets, and slaughter establishments are evolving.

**Impact:**

MDA will need to make significant investments in databases and field equipment, as well as technical support for market and slaughter facilities.

MDA currently provides and coordinates the distribution of RFID tags in the MAZ.

Producers have to purchase RFID tags in the Upper Peninsula and MAAZ.

Collective benefits of universal RFID use include:

- Information technology systems providing information on carcass data to producers
- Country of Origin Labeling
- Source verification
- Increased efficiency in testing and tracking Michigan cattle.

**Consequences if not implemented:**

Loss of initial investment in the RFID program.

Loss of TB status for the entire state.

# Commitment

*Develop and maintain a TB Management Plan in accordance with U.S. Code of Federal Regulations*. [MOU]

**Required change:**
MDA must increase management accountability with measurable outcomes. The Animal Industry Division must also provide timelines for change and write Standard Operating Procedures (SOPs) for the MDA Bovine TB Eradication Program.

Industry and opinion leaders should expect to provide input to MDA on priorities and policy development.

**Impact:**
Plans with measurable outcomes and timelines will make MDA more accountable. However, adhering to strict procedures may make MDA less flexible for the producer.

A management plan, with SOPs will provide a better understanding of the MDA Bovine TB Program.

**Consequences if not implemented:**
Continued difficulty in predicting objectives, timelines and milestones.

# Conclusion

The State of Michigan, in cooperation with USDA, has been successfully working to eradicate bovine Tuberculosis from Michigan since it was first discovered in free-ranging white-tailed deer in 1995. Since that time, the livestock industry has completed surveillance that demonstrates the disease is confined to the northern section of Lower Michigan.

In addition, a surveillance, epidemiology, animal identification, and movement tracking system has been implemented to prevent the spread of this disease between livestock herds.

MDA clearly understands the hardship bovine TB has caused many producers and feels strong compassion for each producer as we all struggle to eradicate this disease. Michigan has entered a critical phase in the disease eradication program and producer and industry support is paramount to its success.

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www.michigan.gov/emergingdiseases